Loureiro. Merrill (1935) had correctly made the new combination under *Pueraria* DC. According to Article no. 25 of ICBN the correct name for the species should be *Pueraria montana* (Lour.) Merrill. Therefore, the typical variety should be named *Pueraria montana* (Lour.) Merrill var. *montana*.

Type: Loureiro, s.n. — Vietnam, Cochin-China (P.)

Accordingly the other two varieties (*lobata* resp. *thomsoni*) should be named:

2. *Pueraria montana* (Lour.) Merrill var. *lobata* (Ohwi) van der Maesen at Almeida comb. nov.
   Basionym: *Pueraria lobata* (Willd.) Ohwi var. *lobata* Ohwi, Bull. Tokyo, Sci. Museum 18: 16, 1947 (see Articles No. 60 & 61 of ICBN).

   Type: Illustr. in Houttuyn, nat. Hist. 2, Plate 64, Fig. 1 (1779), p. 153.

3. *Pueraria montana* (Lour.) Merrill var. *chinensis* (Ohwi) van der Maesen et Almeida comb. nov.

   Basionym: *Pueraria lobata* (Willd.) Ohwi var. *chinensis* Ohwi, Bull. Tokyo Sci. Museum 18: 16, 1947. (See Articles No. 60 & 61 of ICBN).

   Type: S. K. Lau 522 — China (KWA). The remaining synonymy stays correct.

In species No. 12 *Pueraria warburgii* Perkins (1904) has the priority over *Mucuna pulcherrima* Koorders (1908) and should be considered the correct name for the taxon usually listed as *P. pulcherrima* (Kds.) Merr.

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Reference

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38. LICHEN FAMILY COLLEMATACEAE FROM ANDAMAN ISLANDS, INDIA

Introduction

Nylander (1873) recorded *Leptogium marginellum* (Sw.) S. Gray and *L. tremelloides* (Linn. f.) S. Gray, from Andaman Islands, based on his studies of Kurz's collection. Jatta's investigations (1905) of exotic lichens, collected by E. H. Man, made a reference to

Collema actinoptychum Nyl., *C. pulposum* var. *granulatum* (Sw.) Körb (=*C. granulatum* (Linn. f.), *Leptogium azureum* (Sw.) Mont., *L. pichneum* (Ach.) Malme, *L. puiggarrii* Muell.-Arg., *L. tremelloides* var. *rugulosum* Nyl. (=*L. cimiciodorum* Mass.) and *Collema byrsinum* (Ach.) (=*Physma byrsinum* (Ach.) Muell.-Arg.,) from Andaman Islands. Degelius (1974) in his monographic studies on genus *Collema,* reported the occurrence of *C. coilocarpum* (Muell.-Arg.) Zahlbr., *C. rugosum* Krempelh. and *C. actinoptychum* Nyl., from these islands. This study adds five more taxa of this family from these islands; they are *Physma byrsinum* var. *hypomelaenum* (Nyl.) Hue, *Leptogium austro-americanum* (Malme) Dodge, *L. denticulatum* Nyl., *L. isidiosellum* (Ridd.) Sierk and *L. moluccanum* (Pers.) Vainio.

This paper includes short descriptions of the taxa that have actually been examined by us, numbering nine, while the key includes all the sixteen that have been reported from these islands. The specimens studied are lodged at the herbarium of National Botanical Research Institute, Lucknow (LWG).

KEY TO THE ANDAMAN SPECIES OF COLLEMATACEAE

1. Thallus without a paraplectenchymatous cortex 2
1. Thallus with paraplectenchymatous cortex 5
2. Thallus isidiate ..... *Collema rugosum*
2. Thallus without isidia 3
3. Thallus terricolous ..... *Collema granulatum*
3. Thallus corticolous 4
4. Thalline exciple scleroplectenchymatous ..... *Collema collocarpum*
4. Thalline exciple subparaplectenchymatous ..... *Collema actinoptychum*
5. Spores simple 6
5. Spores septate and muriform 7
6. Lower surface of thallus whitish, grey or pale ..... *Physma byrsinum*
6. Lower surface of thallus blackish ..... *Physma byrsinum* var. *hypomelaenum*
7. Isidia present 8
7. Isidia absent 12
8. Isidia associated only with apothecia ..... *Leptogium marginellum*
8. Isidia not associated with apothecia 9
9. Isidia squamuliform ... *Leptogium denticulatum*
9. Isidia not squamuliform 10
10. Thallus surface smooth ... *Leptogium pichneum*
10. Thallus surface wrinkled 11
11. Wrinkles minute, irregular and not raised ..... *Leptogium austroamericanum*
11. Wrinkles acute and raised, isidia much branched (rarely squamuliform) .. *Leptogium isidiosellum*
12. Thallus lobes imbricate, margins entire 13
12. Thallus lobes not imbricate, margins entire or lobulate 14
13. Thallus surface rough, margins sinuate and crisp ..... *Leptogium moluccanum*
13. Thallus surface rugose-plicate, margins not sinuate and crisp ..... *Leptogium cimiciodorum*
14. Thallus lower surface with impressions of funnel-shaped cavities ..... *Leptogium puiggarrii*
14. Thallus without funnel-shaped cavities 15
15. Thallus lead-grey, apothecium with a well developed proper exciple ..... *Leptogium tremelloides*
15. Thallus sky-blue, apothecia with a poorly developed proper exciple ... *Leptogium azureum*

1. **Collema actinoptychum** Nyl., Bull. Soc. Linn. Normandie ser. 2.2:43. 1868.

Thallus corticolous, foliose, olivaceous-yellow, olive-green, lobes orbicular, prominently reticulately ridged; isidia absent; apothecia 0.6 mm in diam., slightly constricted at base, epruinose, exciple subparaplectenchymatous; spores fusiform, curved or straight, 5-septate, 36-45 × 3-5 μm.

Specimen examined: Middle Andaman Island, Bajalungta, Singh 52938 (LWG).

2. **C. coilocarpum** (Muell.-Arg.) Zahlbr., Cat. lich. univ., 3: 34, 1925.

— *Synechoblastus coilocarpus* Muell.-Arg., Flora 74: 107. 1891.

Thallus corticolous, foliose, lobes round and discernible, upper surface densely and prominently ridged; isidia absent; apothecia *c.* 2.0

mm in diam., ± constricted at base, epruinose; exciple scleroplectenchymatous; spores fusiform, usually straight; 5-septate, not constricted at septa, 43-64 × 5-7 μm.

Specimens examined: South Andaman Island, Wright Myo, Singh 79702, 79711, 88295 (LWG).

3. **C. rugosum** Kremp., Fenzl., Reise Novara, Bot. 1: 128. 1870.

Thallus corticolous, foliose, greyish green to blackish; lobes rounded, isidiate, isidia globular, branched; apothecia up to 1.25 mm in diam., slightly constricted at base; epruinose exciple scleroplectenchymatous; spores fusiform to bacillar, straight or slightly curved, 5-septate (up to 8-celled, reported by Degelius, 1974), not constricted at septa, 52-65 × 4-6 μm.

Specimen examined: South Andaman Island, Port Blair, Singh 78886, 78887 (LWG), Middle Andaman Island, Bajalungta, Singh 52934, 52938/B (LWG).

4. **Leptogium austroindicum** (Malme) Dodge, Ann. Mo. Bot. Gard. 20: 419. 1933. — *Leptogium cyanescens* var. *austroamericanum* Malme, Ark. Bot. 19(8): 21. 1924.

Thallus corticolous, foliose, loosely to closely attached to substratum, lead grey-brownish, wrinkled, wrinkles minute, irregular and not raised, lobate, lobes discrete, margin isidiate, isidia simple, globular or rarely branched and squamuliform; apothecia absent in the specimen examined.

Specimen examined: South Andaman Group, Baratang Island, Nilambur (Oral Kacha), Singh 79720 (LWG).

5. **L. denticulatum** Nyl., Ann. Soc. Nat. Bot. ser. 7: 302. 1867.

Thallus corticolous or saxicolous, foliose, loosely to closely attached to substratum, lead grey, lobate; lobes discrete, adnate, imbricate, margin entire or isidiate lobulate; upper surface smooth, isidiate, isidia squamuliform; apothecia not seen in the specimens examined.

Specimens examined: South Andaman Island: Mount Harriat, Singh 67634 (LWG); T.L.D. range, Singh 88232 (LWG); Middle Andaman Island; Parlobjig, Singh 79807, 79813, 79836, 79839, 79884, 79898 (LWG).

6. **L. isidiosellum** (Ridd.) Sierk, Bryologist, 76: 282. 1964. — *Leptogium marginellum* var. *isidiosellum* Ridd; Brooklyn Bot. Gard. Mem. 1: 115. 1918.

Thallus corticolous, foliose, lead-grey to brownish-black, lobate, lobes discrete, orbicular, margin imbricate, entire or isidiate; upper surface reticulately wrinkled, isidia laminal to marginal, simple to coralloid branched; lower surface reticulately wrinkled. Apothecia absent in the specimens examined.

Specimens examined: South Andaman Island, Mount Harriat, Singh 67623; Middle Andaman Island, Bajalungta, Singh 52948 (LWG).

7. **L. moluccanum** (Pers.) Vainio, Etud. Lich. Bresil. 1: 223. 1890. — *Collema moluccanum* Pers., Gaud. Voy. Uran. Bot., 203: 1826.

Thallus corticolous, foliose, yellowish-grey to greenish-grey or dark lead-grey, lobate, lobes discrete, margin entire, isidia absent; upper surface rough; lower surface concolorous with the upper surface, rough; apothecia 2.0 mm in diam., constricted at base, shortly stalked, epruinose; spores muriform, transversely 4-septate, longitudinally 1-3-septate, fusiform, 28-31 × 11-14 μm.

Specimen examined: Middle Andaman Island, Parlobjig, Singh 79819 (LWG).

8. **Physma byrsinum** (Ach.) Muell.-Arg., Flora 58: 531. 1885. — *Parmelia byrsea* Ach., Method. Lich., 222. 1803.

Thallus corticolous, foliose, brownish-grey, lobate, lobes irregular, upper surface rough, finely reticulately rugose, lower surface grey; asci 8-spored; spores simple, hyaline, spindle shaped to globose, 15-25 × 8-12 μm.

Specimen examined: South Andaman Island, Wright Myo, Singh 7905 (LWG).

9. **Physma byrsinum** var. **hypomelaenum** (Nyl.) Hue, Bull. Soc. Linn. Normandie 5 ser. 9: 130. 1906. — *Collema byrsinum* f. *hypomelaenum* Nyl., Ann. Sci. Nat. Bot. 4 ser. 12: 281. 1859.

Similar to *P. byrsinum* var. *byrsinum* except the blackish colour of lower surface.

Specimen examined: South Andaman Island, Wimberly Gunj, Singh 88271 (LWG).

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39. *ASPLENIUM BULLATUM* WALL. EX METT. (ASPLENIACEAE) — A NEW RECORD FOR NORTH-WESTERN HIMALAYA FROM KUMAUN HILLS

During the course of explorations of the fern flora of Kumaun Himalaya, some specimens of a very interesting fern were collected. It was later identified as *Asplenium bullatum* Wall. ex Mett., an identification confirmed by Dr. S. P. Khullar, Botany Department, Panjab University, Chandigarh. A critical scrutiny of herbaria and literature dealing with the ferns of North-Western Himalaya indicates that this species has not yet been reported from North-Western Himalaya and is so far known only from Nepal, Sikkim, Bhutan, Khasia, Penang, Malay Peninsula, Australia, New Zealand, Mexico, New Caledonia, Natal and the east African Islands. The collection of this species from Kumaun Himalaya extends its distributional range further west to North-Western Himalaya, and it is an important addition to the fern flora of North-Western Himalaya in general and Kumaun Himalaya in particular.